AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A semiconductor device comprising:

an insulation film formed on a substrate;

a buried interconnect formed in the insulation film; and

a barrier metal film formed between the insulation film and the buried interconnect,

wherein the barrier metal film is formed of a lamination film of a metal compound film, a fusion layer and a metal film which does not [[loose]] lose its conductivity when being oxidized, and

wherein the fusion layer is present in between the metal compound film and the metal film; and

[[a]] the fusion layer is obtained through fusion of the metal compound film and the metal film with each other ~~is present in the vicinity of an interface between the metal compound film and the metal film~~.

2. (Original) The semiconductor device of claim 1, wherein a metal forming the metal compound film and a metal forming the metal film are different elements from each other.

3. (Original) The semiconductor device of claim 1, wherein a metal forming the metal compound film and a metal forming the metal film are the same element.

4. (Original) The semiconductor device of claim 1, wherein the fusion layer includes at least several atomic layers.

5. (Original) The semiconductor device of claim 1, wherein the metal compound film is formed so as to be jointed with the insulation film, and

wherein the metal film is formed on the metal compound film.

6. (Original) The semiconductor device of claim 1, wherein a metal forming the metal compound film is a refractory metal.

7. (Original) The semiconductor device of claim 1, wherein the metal compound film has conductivity.

8. (Original) The semiconductor device of claim 1, wherein the metal compound film is formed of a metal oxide film.

9. (Original) The semiconductor device of claim 1, wherein the metal compound film is formed of a metal nitride film.

10. (Original) The semiconductor device of claim 1, wherein the metal compound film is formed of a metal carbide film.

11. (Original) The semiconductor device of claim 1, wherein the metal compound film is formed of a metal silicide film.

12. (Original) The semiconductor device of claim 1, wherein the buried interconnect is formed of copper or a copper alloy.

13. (Currently Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a recess portion in an insulation film provided on a substrate;

forming a barrier metal film so that the barrier metal film covers a surface ~~surfaces~~ of the recess portion; and

forming a buried interconnect on the barrier metal film so that the recess portion is filled,

wherein the step of forming [[a]] the barrier metal film includes the step of forming a metal compound film of the surface of the recess portion and then forming on the metal compound film by physical vapor deposition a metal film which does not lose its conductivity when being oxidized, so that a fusion layer is obtained between the metal compound film and the metal film ~~so that the metal compound film covers surfaces of the recess portion and then forming on the metal compound film by physical vapor deposition a metal film which does not loose its conductivity when being oxidized~~.

14. (Currently Amended) The method of claim 13, further comprising, between the step of forming [[a]] the barrier metal film and the step of forming [[a]] the buried interconnect, the step of forming a seed layer on the barrier metal film, and

wherein in the step of forming [[a]] the buried interconnect, the buried interconnect is formed on the seed layer so that the buried interconnect fills the recess portion.

15. (Original) The method of claim 13, wherein a metal forming the metal compound film and a metal forming the metal film are different elements from each other.

16. (Original) The method of claim 13, wherein a metal forming the metal compound film and a metal forming the metal film are the same element.

17. (Original) The method of claim 13, wherein a fusion layer obtained through fusion of the metal compound film and the metal film with each other is formed in the vicinity of an interface between the metal compound film and the metal film, and

wherein the fusion layer includes at least several atomic layers.

18. (Original) The method of claim 13, wherein a metal forming the metal compound film is a refractory metal.

19. (Original) The method of claim 13, wherein the metal compound film has conductivity.

20. (Original) The method of claim 13, wherein the metal compound film is formed of a metal oxide film.

21. (Original) The method of claim 13, wherein the metal compound film is formed of a metal nitride film.

22. (Original) The method of claim 13, wherein the metal compound film is formed of a metal carbide film.

23. (Original) The method of claim 13, wherein the metal compound film is formed of a metal silicide film.

24. (Original) The method of claim 13, wherein the buried interconnect is formed of copper or a copper alloy.